



In the United States Patent and Trademark Office

Application No.: 09/932,433  
Inventors: Murali Chaparala et al.  
Filing Date: August 18, 2001

Commissioner of Patents and Trademarks  
Washington, DC 20231

RECEIVED  
OCT 10 2003  
TC 2800 MAIL ROOM

**Declaration under 37 C.F.R. 1.132**

I do solemnly and sincerely declare as follows:

1. That I was an employee of Onix Microsystems prior to the filing dates of US Patent Application 09/834,744 (April 12, 2001) and US Patent Application 09/932,433 (August 18, 2001).
2. That Murali Chaparala was an employee of Onix Microsystems prior to the filing dates of US Patent Application 09/834,744 and US Patent Application 09/932,433.
3. That during the course of my employment I worked with Behrang Behin, Chuang-Chia Lin, Boris Kobrin, Murali Chaparala and Gary Zalewski on optical switching systems based on microelectromechanical systems (MEMS).
4. That as part of that work on MEMS optical switches dealt with the problem of "stiction", which can be described as a tendency of a rotating MEMS element to stick to an underlying base and resist movement.
5. That as part of a solution to the problem of stiction in MEMS-based optical switches Murali Chaparala and I devised a method for operating a MEMS device having a flap that is movable with respect to a base.
6. That this method involved applying a pre-bias force to the flap to move the flap at least partially out of contact with an underlying base.
7. That Murali Chaparala and I maintained intellectual domination over the work on applying a pre-bias force to the flap.
8. That Murali Chaparala and I did not derive the method of applying a pre-bias force from the work of Behrang Behin, Chuang-Chia Lin, Boris Kobrin, or Gary Zalewski.

I hereby declare that all statements made herein of my knowledge are true and that all statements made on information or belief are believed to be true; and further that I acknowledge that any willful false statements and the like so made herein are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature: Michael J. Daneman  
Michael J. Daneman

Date: 9/26/03

Michael J. Daneman  
443 Gateway Drive, #109  
Pacifica, CA 94044



In the United States Patent and Trademark Office

Application No.: 09/932,433  
Inventors: Murali Chaparala et al.  
Filing Date: August 18, 2001

Commissioner of Patents and Trademarks  
Washington, DC 20231

RECEIVED  
OCT 10 2003  
TC 2800 MAIL ROOM

**Declaration under 37 C.F.R. 1.132**

I do solemnly and sincerely declare as follows:

1. That I was an employee of Onix Microsystems prior to the filing dates of US Patent Application 09/834,744 (April 12, 2001) and US Patent Application 09/932,433 (August 18, 2001).
2. That Michael J. Daneman was an employee of Onix Microsystems prior to the filing dates of US Patent Application 09/834,744 and US Patent Application 09/932,433.
3. That during the course of my employment I worked with Behrang Behin, Chuang-Chia Lin, Boris Kobrin, Michael J. Daneman and Gary Zalewski on optical switching systems based on microelectromechanical systems (MEMS).
4. That as part of that work on MEMS optical switches dealt with the problem of "stiction", which can be described as a tendency of a rotating MEMS element to stick to an underlying base and resist movement.
5. That as part of a solution to the problem of stiction in MEMS-based optical switches Michael J. Daneman and I devised a method of operating method for operating a MEMS device having a flap that is movable with respect to a base.
6. That this method involved applying a pre-bias force to the flap to move the flap at least partially out of contact with an underlying base.
7. That Michael J. Daneman and I maintained intellectual domination over the work on applying a pre-bias force to the flap.
8. That Michael J. Daneman and I did not derive the method of applying a pre-bias force from the work of Behrang Behin, Chuang-Chia Lin, Boris Kobrin, or Gary Zalewski.

I hereby declare that all statements made herein of my knowledge are true and that all statements made on information or belief are believed to be true; and further that I acknowledge that any willful false statements and the like so made herein are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature: Murali Chaparala  
Murali Chaparala

Date: Sep 25, 03

Murali Chaparala  
4109 SE 183<sup>rd</sup> Place  
Vancouver, WA 98683